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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,278	04/09/2002	Susanne Kessler	1951	9010

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EXAMINER	
BROWN, COURTNEY A	
ART UNIT	PAPER NUMBER
1616	
MAIL DATE	DELIVERY MODE
11/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/030,278	KESSLER ET AL.	
	Examiner	Art Unit	
	COURTNEY BROWN	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *36-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Receipt of Amendments/Remarks filed on August 15, 2008 is acknowledged. Claims 1-35 were cancelled. Claims 47 and 48 were added. Claims 36-48 are pending and are being examined for patentability.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 36 and 37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,250,174 B2 in view of Greenspan (WO 98/11853) and Yli-Urpo et al. (US Patent 5,762,950). Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by US Patent 7,250,174 B2 ("174")

Instant claims 36 and 37 are drawn to a method for preserving cosmetic compositions comprising the use of bioactive glass comprising silicon dioxide, calcium oxide, phosphorus oxide, and sodium oxide. The only difference between the invention of the instant application and that of US Patent 7,250,174 B2 is that the instant invention requires different percent ranges of the oxide particles and it additionally contains CaF_2 ,B_2O_3,K_2O, MgO, and hydroxyapatite. Greenspan teaches a bacteriostatic bioactive glass composition comprising from 40 to 60 percent by weight of SiO2, from 10 to 30 percent by weight of CaO, from 10 to 34 percent by weight of Na2O, from 2 to 2 percent by weight of P2O5, from 0 to 25 percent by weight of CaF2, from 0 to 10 percent by weight of B2O3, from 0 to 8 percent by weight of K2O, and from 0 to 5 percent by weight of MgO(see abstract and claims 1 and 2). Yli-Urpo et al. teach a bioceramic system for delivery of a bioactive compound, which comprises a

combination of bioactive glass, bioactive glass ceramic or bioactive ceramic, hydroxyapatite (abstract). One of ordinary skill in the art would have been motivated to do so with the expected result of an enhanced particulate bioactive glass composition having effective antimicrobial properties that are small enough to incorporate into any cosmetic formulation. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is produced in the Patent ("174').

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 36-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimono et al. (US Patent 5,290,544) in view of Greenspan (WO 98/11853) and Yli-Urpo et al. (US Patent 5,762,950).

Applicant's Invention

Applicant claims a method of preserving a perishable cosmetic preparation comprising adding : bioactive glass particles with particle sizes less than or equal to 10mm with the cosmetic preparation containing .1 to 7 percent by weight of the bioactive glass particles wherein the bioactive glass particles consist of from 40 to 90 percent by weight of SiO2, from 4 to 45 percent by weight of CaO, from 0 to 10 percent by weight of Na2O, from 2 to 16 percent by weight of P2O5, from 0 to 25 percent by weight of CaF2, from 0 to 40 percent by weight of B2O3, from 0 to 8 percent by weight of K2O, and from 0 to 5 percent by weight of MgO; wherein the said bioactive glass

particles contain calcium and phosphorous in relative amounts that are sufficient for formation of a hydroxyapatite layer on contact with an aqueous medium; and an aqueous or alcoholic solvent

Determination of the scope and the content of the prior art (MPEP 2141.01)

Shimono et al. teach a method of preserving a cosmetic preparation, preferably used as those containing water in a recipe, in the form of a skin lotion, make-up(foundation and eye-shadow), and lipstick, wherein the said method comprises adding to said cosmetic preparation an effective amount of from about .5 to about 2.5% of a particulate bactericidal bioactive glass composition; wherein the said particulate bactericidal bioactive glass composition may comprise : B_2O_3, SiO_2, Na_2O, P_2O_5, CaO, and MgO; wherein said particulate bactericidal bioactive glass composition has particulate diameters of less than or equal to about 20 μm, preferably less than or equal to about 10 μm, and more preferably less than or equal to about 5μm (abstract; column 1, lines 6-16,38-41 and 46-53; column 2, lines 3-64; column 3, lines 3-11, 36 and 47; column 4, lines 18 and 32; column 5, line 33; column 6, lines 17 and 33; column 7, lines 9 and 27; claims 1 and 3-6).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the invention of the instant application and that of Shaimono et. al. is that the instant application requires the use of bioactive glass particles that consist of from 40 to 90 percent by weight of SiO2, from 4 to 45 percent by weight of CaO, from 0 to 10 percent by weight of Na2O, from 2 to 16 percent by weight of P2O5, from 0 to 25 percent by weight of CaF2, from 0 to 40 percent by weight of B2O3, from 0 to 8 percent by weight of K2O, and from 0 to 5 percent by weight of MgO as opposed to the use of only B2O3, SiO2, Na2O, P2O5, CaO, and MgO. For this reason, the teaching of Greenspan is joined. Greenspan teaches a bacteriostatic bioactive glass composition wherein said bioactive glass has a particle size range less than 2 microns wherein said composition comprises from 40 to 60 percent by weight of SiO2, from 10 to 30 percent by weight of CaO, from 10 to 34 percent by weight of Na2O, from 2 to 2 percent by weight of P2O5, from 0 to 25 percent by weight of CaF2, from 0 to 10 percent by weight of B2O3, from 0 to 8 percent by weight of K2O, and from 0 to 5 percent by weight of MgO(see abstract and claims 1,2, and 5).

Another difference between the invention of the instant application and that of Shimono et al. is that the instant invention requires the use glass particles that form a hydroxyapatite surface layer when in contact with an aqueous medium as opposed to being silent. For this reason, the teaching of Yli-Urpo et al. is joined. Yli-Urpo et al. teach a bioceramic system for delivery of a bioactive compound, which comprises a combination of bioactive glass, bioactive glass ceramic or bioactive ceramic,

hydroxyapatite, optionally one or more other calcium phosphate compound and optionally a matrix, and which may incorporate into the bioceramic system a bioactive compound(abstract). Yli-Urpo et al. teach that bioactive glass, glass ceramic or ceramic reacts with water by forming a reactive silica-rich layer and a layer rich in calcium and, if present, phosphorous (column 1, lines 25-28). Additionally, Yli-Urpo et al. teach that when hydroxyapatite is combined with bioactive glass, glass ceramic, or ceramic, an interphase reaction starts and reactive interphases are formed which is activated by an electrolyte, such as, water (column 3, lines 8-14).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bioactive glass compositions of Greenspan and Yli-Urpo et al. to arrive at a method of preserving a perishable cosmetic preparation using particulate bactericidal bioactive glass composition that has particulate diameters of less than or equal to about 20 μm, preferably less than or equal to about 10 μm, and more preferably less than or equal to about 5μm as taught by Shimono et al.(abstract) . One of ordinary skill in the art would have been motivated to do so with the expected result

of an enhanced particulate bioactive glass composition having effective antimicrobial properties that are small enough to incorporate into any cosmetic formulation. .

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on August 18, 2008 have been fully considered but they are not persuasive. Applicant argues that Greenspan does not disclose or suggest that their bioactive glass composition would be useful in preserving cosmetic compositions and that there is no teaching in Greenspan that the bioactive glass composition disclosed have antimicrobial action. However, the teaching of Greenspan was brought in to show that the use of a bioactive glass composition having a bacteriostatic effect (see page 12 of Greenspan) consisting of the claimed components and weight percentages was known at the time of the instant invention. Hence, whether the formulation would be useful in preserving cosmetic compositions would not preclude one of ordinary skill from its selection. It is duly noted that the composition of the prior art is the same as Applicant's composition. Thus, the skilled artisan would recognize that a composition is inseparable from its properties. Hence, all the properties associated with Applicant's compositions would also be possessed by the compositions of the prior art.Additionally, the Examiner wants to point out that a composition that consists of the same components will possess the same properties and therefore lead to identical and desired results. Products of identical chemical composition cannot have mutually exclusive properties." A chemical composition and its properties are

inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990)

Applicant additionally argues that Yli-Urpo et al. donot disclose or suggest that their hydroxyapatite and/or bioactive glass have a bacteriostatic effect. However, the teaching of Yli-Urpo was bought in to show that the use of a bioactive glass composition comprising hydroxyapatite was known at the time of the instant invention. Hence, whether the composition as disclosed by Yli-Urpo having a bacteriostatic effect would not preclude one of ordinary skill from its selection.

Examiner's Response to Applicant's Second Declaration of Facts Filed Under 37 C.F.R. 1.132

Applicant's Second Declaration of Facts Filed Under 37 C.F.R. 1.132 filed on August 15, 2008 has been fully considered but is not persuasive. Applicant argues that bioactive glass particulates with a particle size that is less than or equal to 10 μm, preferably 4 μm has unexpectedly better antibacterial action (see pages17-19 of Applicant's Remarks filed on August 15, 2008) as supported by the test data in the enclosed Declaration 1.132 affidavit. However, Shimono et al. teach the use of bioactive glass particulates that is less than or equal to 10μm (see column 4, line32)). Applicant relies on particle size to show unexpected results. However, this is not persuasive because the prior art teaches the same particle size.

Conclusion

None of the claims are allowed.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown

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